Lean Startup Methodology for Enterprises

How Established Companies Can Leverage Lean Startup Methodology for Sustaining and Disruptive Innovation

Abstract

Lean Startup Methodology has grown in popularity and has become more formalized since the start 2008 with numerous blogs, articles and books appearing on the topic. This paper introduce Lean Startup Methodology and discuss the following three questions: Why should established companies be interested in Lean Startup Methodology, what have other larger enterprises done with Lean Startup Methodology, and what benefit can larger enterprises get from using Lean Startup Methodology?

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Table of Contents

1. Introduction

Lean Startup Methodology has grown in popularity and become more formalized since Eric Ries started his blog on "startup lessons learned" in 2008, with numerous other blogs, articles and books published since then on the topic. This paper seeks to answer the following questions

(1) Why should established companies be interested in Lean Startup Methodology?
(2) What have established companies been doing with Lean Startup Methodology?
(3) How can enterprises get the most benefit from Lean Startup Methodology?

The underlying principle that drives the lean methodology is to improve efficiency. In a startup, efficiency means knowing exactly what your customers will want, how much they will pay and exactly what the product will look like. Without knowing these things, time and money will be wasted following the wrong track. Established businesses already know these answers about their core business. In areas of high certainty, existing business processes have been optimized to be efficient at answering these questions. However, the greater the uncertainty, the greater the chance that traditional business processes fail. In these cases, established business has a great deal in common with a startup.

During times of uncertainty, there is greater chance for inflection and disruption. If the established business misses an inflection or disruption or someone else better manages the transition, failure is more likely for the enterprise. The key idea is that the more disruptive a new idea or change, the more traditional management tools can fail, and the more useful are the tools of a startup. Are times uncertain? Should enterprises worry? Yes they should. There

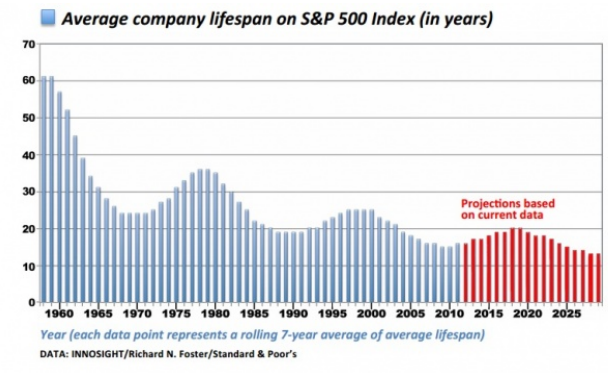

Figure 1 Average Lifespan on S&P 500

are many indicators that point to increasing difficulty for incumbents. One example is the average lifetime of S&P 500 companies that is steadily decreasing.

Assuming that innovation is critical for today's incumbents, in the next section we discuss the barriers to innovation for today's enterprises. We then define the concepts and terms used in Lean Startup Methodology and discuss some use case studies that show where established large companies are adopting lean startup ideas.

In the discussion section, we analyze the case studies in the context of lean startup and close the paper by summarizing what it takes for the LSM to succeed within an enterprise.

2. Barriers to Innovation in an Enterprise

The goal of unlocking innovation within an enterprise is not new. When the innovation simply extends existing successful products or business models in an enterprise, it can be effectively managed within the existing processes and procedures of the enterprise itself. Many of the most successful enterprises are highly skilled at this innovation, and they have set up extensive Research & Development divisions that harness these skills. However, it is more difficult when the innovation is not aligned with the existing products or business models. In this case, the business usually does not have any processes in place to nurture and develop such innovation, and in fact, the enterprise is stubbornly efficient at killing the innovation[1] completely before it has time even to be fully invented.

It is this latter case that has troubled enterprises since the first time an entrenched company was put out of business by a new idea. In *The Innovator's Solution*[2], Clay Christensen writes, "Enterprises need to innovate or perish at the face of the disruptive innovation which creates new markets by offering features to current non-customers, or offer more convenience and lower prices to existing customers at alternate segments of the market." It is this disruptive innovation that can lead to the downfall of existing businesses as well as the markets themselves, as in the case of Kodak not successfully making the transition to digital cameras.

It is not easy for enterprises to alter their innovation focus. In *Innovate or Perish*[3], Edward Kahn writes, "Barriers to creative innovation arises from management, process and cultural issues within the enterprise. Lack of management support, excessive bureaucracy and rationalization, and lack of coaching of the innovation teams hinder innovation within a typical enterprise. Lack of resources and time allocation; lack of tools, criteria and metrics; and lack of an enterprise wide innovation program hinder innovation from a process perspective. Fear of failure, intolerance to out-of-box thinkers and lack of appropriate awards and recognition that value disruptive thinking are often not part of enterprise cultures."

In *The Lean Enterprise*[4], Owens & Fernandez state, "In our view, the word intrapreneur is an oxymoron. The roles of employee and entrepreneur are mutually incompatible. Executives

who expect salaried workers transplanted into an innovation department to come up with great ideas, invest the company's capital in them, and shepherd them to market success are fooling themselves." Creating a new innovation department that is supposed to innovate along directions opposite to the current enterprise value model is difficult. Startups, on the other hand, have innovation and disruption in their DNA.

3. Principles of the Lean Startup Methodology

A *startup* is a temporary organization meant to implement a new and repeatable business model in conditions of extreme uncertainty. A *lean startup* efficiently searches for a valuable business model by iteratively validating hypotheses against real users, while committing the least amount of resources at all stages.

The Lean Startup Methodology was conceived by Eric Ries and is defined as:

(1) Entrepreneurs are everywhere
(2) Entrepreneurship is management
(3) Validated learning
(4) Innovation accounting
(5) Build-measure-learn

The first two points show the growing understanding that entrepreneurs can exist everywhere and that it is possible to train people/organizations how to take advantage of this fact. This is imperative to understand for the enterprise. If this is accepted, there needs to be a complement to the classic R&D process, and good companies will have internal forces that can be utilized in the search for innovation.

The third point indicates that the startup should be in search mode instead of execution mode. The search may be for the product, the channel, or the customer. Point three also means to search as quickly and efficiently as possible. Ash Maurya[5] uses a *Lean Canvas Model* based on the Business Model Canvas[6]. The intent of the lean canvas is to spell out assumptions about the product and the market and identify the *Unique Value Proposition* (UVP) offered by the startup. This search has also been expressed by Eric Ries[7] and his *Build-Measure-Learn* cycle and by Steve Blank's[8] "get out of the building" approach to customer discovery. At each cycle of validated learning, the startup should "pivot or persevere" to minimize time wasted on a faulty approach.

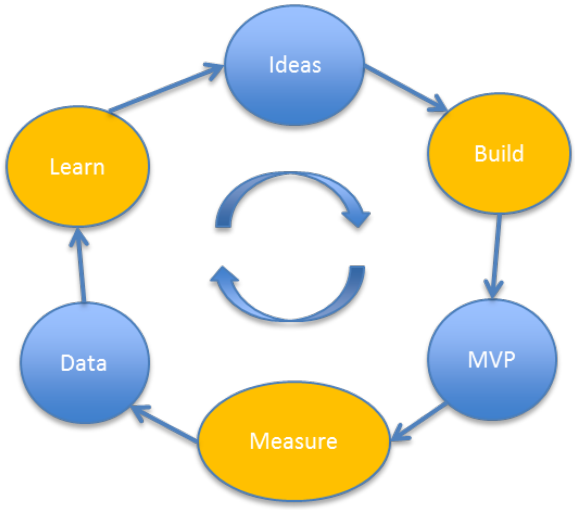

Figure 2 Build-Measure-Learn Cycle

A key idea of this third point is the *minimum viable product* (MVP). This is the minimal feature set necessary to validate an assumption about the product, market, or customer. The MVP can be used in A/B split testing to make path finding decisions.

Fourth on the list is good, actionable metrics that needs to capture the results of the testing and that can be used to understand how the learning is progressing. These metrics are often called innovation accounting. One example is Dave McClure's Five Pirate Metrics[9] (AARRR). He suggests tracking customer progression through each of five stages: *Acquisition, Activation, Retention, Referral, and Revenue*. It is also suggested to use a ratio or comparative metric to prevent "vanity" metrics which all go "up and to the right". Some, like Alistair Croll[10], have suggested that at any stage, the whole startup should be driving towards a single metric which answers the key question for that stage, called the *One Metric That Matters* (OMTM). Steve Blank has been using a formulation to define these stages, called the *Investment Readiness Level* (IRL). He defines nine levels which communicate how well the startup has established its business canvas and validated its market assumptions, MVP and UVP.

We can summarize the differences between the "normal" enterprise and the lean startup in the following table.

Organizational Area	Traditional	Lean Startup
Goal / Business Plan	Execution	Discovery
Model	Biz Model Canvas	Lean Canvas
Testing Focus	Internal	External
Product	Full product launch	Test (MVP)
Metrics	Corp acct	Innovation (OMTM)
Strategy	Red Ocean	Blue Ocean
Process	Schedule / Quality	Learning

Table 1: Summary of differences between normal enterprise and Lean Startup

With the basic tenets of lean startup defined, numerous lean methodology subfields are still emerging. These include detailed treatises on lean analytics[10][10], lean user experience (UX)[11,12], lean customer development[13], lean enterprise[14] and lean branding[15]. There are also numerous workshops and business school programs teaching lean methodology[16].

4. Case Studies of Lean Startup in Enterprise

Even though lean startup is fairly new, especially within the enterprise sector, there are some use cases that can be valuable in creating context to the method. Each case is different in its execution and also point to different parts of lean startup.

4.1. GE

General Electric has begun to embrace Lean Startup Methodology. At the Lean Startup Conference in San Francisco 2013[17], a team of GE employees explained that they have been working with Eric Ries to create something called the FastWorks program.

As this has grown, the FastWorks program has become an important part of GE's strategy, as can be seen in the GE 2013 Annual Report[18]: "FastWorks—a set of tools and processes to develop new products quickly, achieve better outcomes for our customers, and drive quality and competitive advantage". More details can be found in the 2013-the-year-in-review report[19] that writes:

> "In the first year, Ries trained 80 coaches exclusively dedicated to FastWorks. Together they exposed almost 1,000 GE executives to Lean Startup principles. GE also launched 100 FastWorks projects in US, Europe, China, Russia and Latin America. They range from building disruptive healthcare solutions to designing new gas turbines. GE plans to expand the program to 5,000 executives and launch hundreds of new projects next year. "GE is an ideal laboratory for applying lean practices because of its scale," Ries says. "This is undoubtedly the largest deployment of Lean Startup ideas in the world."

Lean startup groups were even formed in parts of the company that were not consumer facing, like accounting, HR, and IT (which facilitates some of the process changes that needed to be put in place to manage the FastWorks Projects).

Some more facts of their results and experiences were shared at the 2013 Lean Startup Conference. For example, GE launched a home appliance project using Lean Startup Methodology and up to the conference they had used more than 10 MVPs (real functional hardware products), at two test sites (A/B testing) to find out what customers thought. Further, GE has also investigated what an MVP is to jet engine development and hospital equipment development. In both these cases, it is hard to build real-to-life test versions of the products that customer can use. But as stated in the conference, if the MVP is used in the health sector to test market viability first (MVP then becomes a Market Validated Product), then V model development with FDA validation is aiming at the right target.

In an investor presentation[20], J.R. Immelt (CEO of GE) further explained how the FastWorks program contributes to GE. To enhance GE's competitiveness, FastWorks makes GE more Process driven/IT, better at Test + learn and it enhance product cost and margins. This leads to lower product cost, more NPI/R&D spending and better inventory turns. Mr Immelt continued by saying,

> "And I've got to tell you, the speed -- one of the biggest benefits with that processing, the speed with which it comes, is that you get to know faster, too. So you're not two-thirds through a multi-year product where you've invested $100 million, $150 million, and the team's version of success is completion, when we ought to be moving on to the next idea. So I think this is a really big deal."

4.2. Intuit

With revenue of 4.3 billion in 2013, and with products like Turbotax, Quicken and Quickbooks, Intuit co-founder Scott Cook believes that established companies need to adopt a lean model to innovation even more than start-ups do[21]. Scott believes that the ability to innovate repeatedly and reliably must be carefully woven into the fabric of an organization. Intuit has set in place an innovation culture that encourages every employee to innovate and gives them the tools and resources to be successful. They include employee unstructured time, innovation catalyst mentors, innovation awards, lean start-in events and horizontal planning.

As part of *unstructured time*, Intuit employees can spend up to 10% of their time on projects they're passionate about. If employees prefer, they can aggregate their unstructured Time into contiguous blocks. Regular project planning assumes the 10% use of unstructured Time across all employees[22]. Since its launch in 2008, the success in using unstructured time towards innovation has generated multiple products like SnapTax**,** GoPayment**,** and ViewMyPaycheck**.** As was described by the Intuit software product manager Carol Howe, Snaptax was created in 2009 as a document capture tool for Turbotax Online[23]. Based on customer feedback, they experimented with changing the scope of this product to be able to fill the tax data automatically for the basic customer filing returns in California with no home, no kids and no investments; this was their MVP. The resounding customer feedback with over 350,000 downloads in the first 3 weeks resulted in a new product line for Intuit. The success of Snaptax was attributed to a process deliberately facilitated by Intuit's management where they created an "island of freedom" for the innovation team within Intuit.

The *innovation catalyst mentors* are a group within Intuit who are experts in Design for Delight (D4D); where the role of design in innovation is stressed through design challenge, creating prototypes, getting feedback, iterating, and refining. This effort was started within Intuit to galvanize the customers based on the NPS (Net Promoter Score – a customer feedback system based on likelihood of recommending this product to friends)[24]. More than 8 million dollars are allocated in the budget for a fiscal year towards *innovation awards* within Intuit[25].

Horizon Planning is a key set of principles Intuit employs to balance their short- and long-term investments[26]. H1 offerings (Current revenue products - Turbotax and Quickbooks) aspire to deliver shareholder results while continuing to innovate and create efficiencies that are reinvested to accelerate customer and revenue. H2 offerings (emerging offerings - Intuit Online Payroll and Gopayment) aspire to deliver market results. H3 offerings (potential new business incubated in Intuit labs) aspire to deliver "love metrics". Love metrics include

delivering measurable customer benefits, gaining active use and positive word-of-mouth (typically a high NPS or Net Promoter Score[27]**)**.

Scott Cook stresses the leader's role in enabling lean startup within an enterprise[23]. Barath Kadoba, VP business development for Intuit India, describes how his team responded to the grand challenge of creating a business that improves the financial life of all Indians[23]. He recalls that he was funded with three engineers to create a business for 1.2 billion people, but had complete independence in decision making. They focused on the farmers of India and developed a mobile platform to deliver agricultural market price information. The experiment took 4 years, and more than 20 lean experiments; initially with the 3 engineers manually texting the market information to these farmers for customer validation. The outcome was a tool called Fasal that was a resounding success within Intuit product portfolio.

Mr. Cook firmly believes that Lean innovation is mandatory for achieving Intuit's vision of "changing lives so profoundly that people can't imagine going back to the old way."[23]

4.3. Qualcomm

As noted on Steve Blank's blog[28] by Ricardo Dos Santos (who pioneered the Qualcomm Venture Fest (QVF) program), Qualcomm launched a company-wide innovation program called QVF in 2006. QVF had the following stated goals: (1) Drive innovation itself (discover new business opportunities), (2) Foster development of innovation leaders and promote innovation as a shared-responsibility throughout the company culture, and (3) Learn as a company about potential new management practices that rely less on formal and/or classic structures.

Mr. Santos recounts that Paul Jacobs, the then CEO of Qualcomm required that the new program be open to each and every employee and that ideas were to be implemented by existing teams in the company. Furthermore, he wanted to ensure that the most innovative ideas were presented to the top-level executives consistently. The overall program consisted of one single innovation phase gated on each end by a selection process. The first selection process identified ten or so proposals (from among hundreds) that should go forward. The innovation phase was a three-month-long part-time boot camp in which selected teams were trained in entrepreneurial skills and were encouraged to explore, prototype, and discover how to make their ideas work. The second selection process awarded funding to the top teams. They were then required to behave like actual startup businesses within existing business units. This program had executive sponsorship from CEO, Paul Jacobs; since it brought novel and thought provoking ideas to his executive team's attention. The program steadily generated healthy interest from Qualcomm employees with over 500 proposals after a few years. Several ideas were fully or partially implemented with a few breakthrough successes, and hundreds of related patents were filed.

Ricardo Dos Santos recounts in Steve Blank's blog[28] that irrespective of the successes of QVF, it had a few challenges. One of the challenges was that there was no program support for these new ideas after boot camp. Thus, if there was no business unit into which an idea naturally fit, the teams did not understand how they were supposed to continue driving their

ideas. This eliminated the most innovative and disruptive ideas from ever coming to fruition. Another challenge was that the program clashed with the existing well-proven R&D process that had been driving innovation in the existing wireless business for some time. This was because either the corresponding markets for the new ideas were outside of the existing R&D market expertise, or because the technology was still very hypothetical, risky, and received little attention.

One recommendation from Dos Santos was to provide a more formal proof-of-concept center that would help validate all of the key assumptions early on. One of the more interesting features of the program is that it encouraged the teams to effectively perform what is now referred to as customer discovery as part of the innovation phase in an iterative fashion with very limited resources. This correlates directly to the methodologies of a lean startup.

The learnings from QVF (retired after 5 years) seem to have been incorporated in the ImpaQt program that Qualcomm launched in 2012[29]. Narvina Singh, who heads the impacQt program describes that the goal of the program is to encourage cross-divisional and cross-functional collaboration at Qualcomm, to spark new ideas, and to inspire innovation in areas of strategic interest to Qualcomm. With a focus on technology and business innovations, where ideas are evaluated by experts & feedback is provided to foster new ideas by connecting innovators with the domain experts in the company , ImpaQt also makes available micro funding (seed funding) to build the proof of concept prototypes before scaling the ideas to new business units or products within Qualcomm.

4.4. U.S Government

In July 2010, when the CFPB (Consumer Financial Protection Bureau) was created by the President to protect American citizens from predatory lending by financial services companies; Mr. Obama recognized the opportunity to add the innovative approaches of lean startup in to the biggest enterprise, the US government[30]. President Obama tasked the then CTO of United States, Mr. Aneesh Chopra with this effort. Mr. Chopra touched base with Eric Ries and examined how lean startup principles could be applied and technology could be used to make the agency more efficient and cost-effective.

Chopra and Ries thought the CFPB might be the right place to demonstrate the merits of a lean startup approach by government, if they could establish a clearly defined problem, recruit a small, nimble team of innovators to design an innovative product, and then rapidly learn from public feedback.

One of the first projects where the lean startup principles were used within CFPB was the project around combining the Truth in Lending form and the Good Faith Estimate. The hypothesis was this would help the consumers and lenders alike, as it removed ambiguity in the loan owed. Applying lean startup principles, the team developed a website called “Know Before You Owe”. The website launched in May 2011 with two draft designs (MVP) accessible online. The public was then called upon to experiment with the site and provide

feedback. Mr. Chopra believed that iterating against user feedback and using technology to open the design process has been part of a broad collaborative approach at the CFPB.

Lean startup principles also were applied in the development of healthcare.gov, which was launched in just 90 days and at a fraction of the cost the federal government often spends on such endeavors. This website started off with minimal functionality and was build based off the feedback from the consumers on the information they were looking for. Eric Ries believed that this was one of the classic approaches of lean startup to do customer validation before scaling.[30]
The challenge with lean startup in Government is with the fact that taking chances in the public sector are not normally rewarded, so these types of approaches can be tougher to implement. The recently announced White House-sponsored innovation fellows program is designed to encourage entrepreneurs to work for federal agencies for six-month timespans to help solve a variety of data-related challenges[31].

4.5. Toyota

Since the first publication of *The Machine That Changed the World*[32], the concept, principles and practices of "lean" have been extended from manufacturing to sales to product development. Although not as famous as its production system, Toyota's Product Development System (TDS)[33] harnesses 13 principles to enable Toyota to be efficient at releasing successful products by integrating efforts among sales and marketing design, purchasing, engineering, manufacturing and suppliers.

The first two principles of TDS are 1) establishing customer-defined value to separate value-added from waste, and 2) front-load the product development process to explore thoroughly alternative solutions while there is maximum design space. These are in good alignment with lean startup principles.

At the 2013 Lean Startup Conference, two representatives (Matt Kresse and Vinuth Rai) from the Toyota Infotechnology Center[34] shared their experience in applying lean startup principles to engage customers and to solicit feedback from customers for earlier incorporation in product development. They felt that although the Toyota Production System used the TDS principles efficiently, customer facing aspects of the automobile including navigation and multimedia got customer feedback only after the vehicle launch.

They used an Android tablet wired into a car as an MVP, which facilitated a direct interaction with customers. They posted ads on craigslist to which more than 300 people responded to, and conducted a live trial with the prototype system to facilitate feedback. These trials were deemed successful by the team, with retention at 60% and referral at 40%.

Presenting these findings to Toyota Management, the response was twofold: Why is this important (Toyota usually look on the whole car for customer satisfaction) and although interesting, how to balance this new information/learning with the process normally driven by the development team and the experiments that are in progress.

Toyota Infotechnology Center took these questions to heart and connected with the two Toyota R&D centers in LA and Detroit, to continue working with lean startup methodology.

The result is that continued tests with real customers, generate feedback that is sent directly to the product teams. The hope is that by including real customer tests early, time to market for the system will shrink and that it also will make the product more customer-friendly, already the first time it ships.

With innovations implemented at the rate of 1 million ideas each year[35] , it is not clear right now how Toyota can or will use lean startup ideas. Only time will tell.

5. Discussion

In this section, we discuss the benefits we believe enterprises can get from using lean startup methodology. We do this by pointing out some key aspects we've found while exploring lean startup methodology and the case studies we have looked at in chapter 4. First, let's define a process that enterprises can adopt to implement lean startup methodology for innovation.

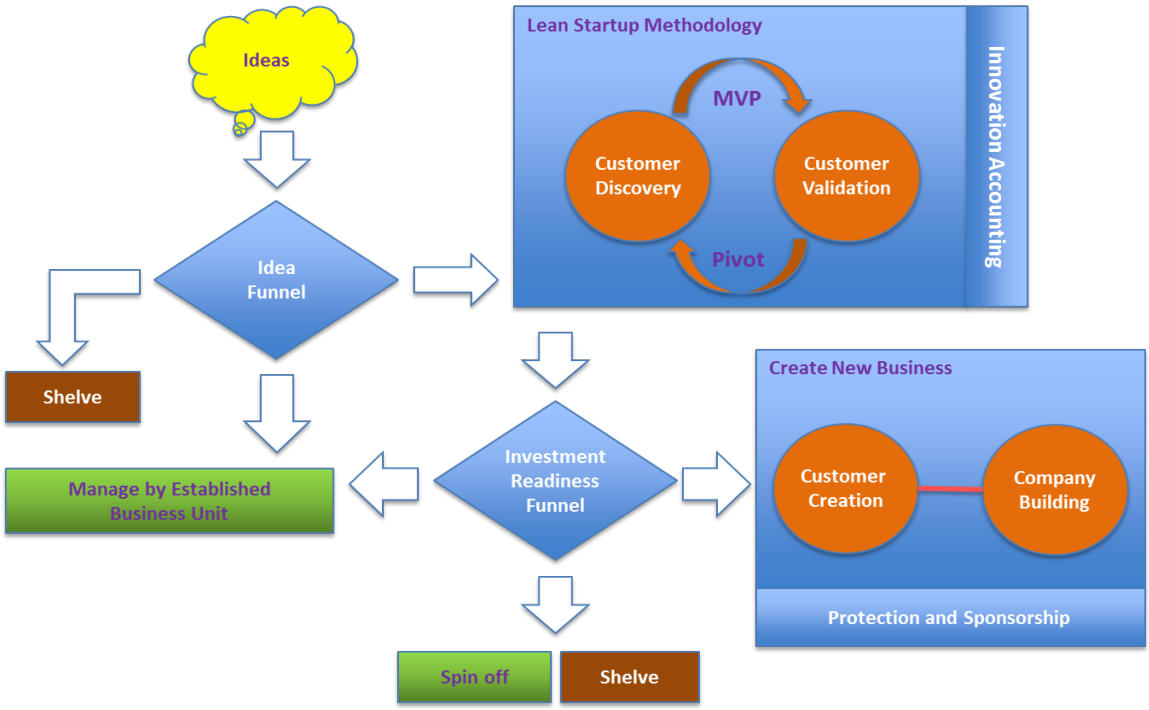

Figure 3 Innovation Flow-Chart in the Enterprise

We believe it's important for any company that wants to proceed the lean startup way to understand the key differences in business models between traditional and lean methodologies. We believe there needs to be systems and/or processes in place to recognize whether an idea can be managed by the traditional business processes or whether lean startup methodology should be applied. The decision should be based on the five metrics in Table 2 Idea Funnel Metrics. If not understood it might result in force feeding the functional organization with good ideas that no one understands how to manage. These challenges can be seen in the Qualcomm case study in the adoption of QVF.

Context	Traditional	Lean Startup
Business model	Sustain existing	Discovery
Customers	Known	Unknown
Business alignment	Direct	Different / Conflicting
Resources	Implicit	At risk
Market	Existing / Well-known	New / Untested

Table 2 Idea Funnel Metrics

Once this has been done, there should also be an appropriate funnel system and training to guide the idea into a lean mode. GE for example educates coaches that work full time to support BUs to understand the lean startup methodology and how they should work with them. All ideas, once deemed appropriate for lean learning, are managed by the appropriate Business Unit.

A very important part of the start is to build the right teams for the lean startup methodology, and it's worth noting that it should not be done as with normal team building in the functional organization. We have listed the differences between functional and lean teams in Table 3 Organization Aspects Of Lean Startup Vs. Traditional Enterprise. For example, lean teams should be cross functional, incorporating idea source, development, sales, marketing etc. This is implemented in lean start-in events at Intuit, where even legal participates. Once ideas are moved further along, Intuit build small H3 teams for customer development and team members in this phase frequently wear multiple hats.

Another important aspect is that lean teams should be allowed to work undisturbed for the time they exist, thus creating focus on the build-measure-learn cycle. Next, once ideas are designated for lean startup development, customer development as defined by Steve Blanks ensues, with MVPs, Pivots and customer validation until a viable business model is found.

Organizational Area	Traditional	Lean Startup
Team	Existing	Newly formed
Leadership	Mid-level	CEO / GM

Resources	Shared	Self-contained
People	Within-org	Dedicated, cross-functional
Innovation	Specified / R&D	Enterprise-wide
Metrics	ROI	Investment readiness (IRL)
Ideation	Top-down	Bottom-up

Table 3 Organization aspects of Lean Startup vs. Traditional Enterprise

How do we know when to stop pivoting?

This is where Innovation accounting comes into play. Generally they are used to gauge the whole lean startup process (Customer development to company building), but a subset is good to use for decisions on continued pivoting, abandonment, spin off or insertion into the appropriate BU for scaling. Material as to what decisions and metrics are used by enterprises today, are scarce.

Stage	Startup Metrics	Intrapreneur Metrics
Empathy	Customers interviewed (Needs and Solutions), assumptions quantified, TAM, monetization possibility	Non-customers interviewed, assumptions quantified, constraints identified, TAM, disruption potential
Stickiness	Chum, Engagement	Support tickets, call center data, delays, integration time
Virality	Viral coefficient, Viral cycle time	Net Promoter Score (NPS), case study willingness, referrals
Revenue	Attention, Engagement	Billable activity, pilot programs, signed LOI, after-development profitability
Scale	Automation	Contribution, training costs, licensing

Table 4: Innovation Metrics

GE has highlighted shorter time to market and less investment before some of the metrics that they are looking at. Intuit has used the NPS as the key

These are lagging metrics, but can leading metrics also be used? Alistair Croll[36] model based on 5 stages, where startup metrics and their intrapreneurial listed as captured in

Table 4: Innovation Metrics. An example from this list is support tickets (stickiness phase = found a good business model). They are forward looking and if not taken care of will result in churn (lagging metrics).

What can be said in terms of how you actually implement Lean startup methodology within an enterprise? We believe that both the GE method and the way that Intuit have done it works, even though they have approached the introduction slightly different.

Given that larger enterprises today function well by having strong process execution, this fact should be possible to utilize when rolling out an initiative like lean startup methodology. At the same time, as Intuit attest to, entrepreneurial culture is very vital to innovate and do disruptive things.

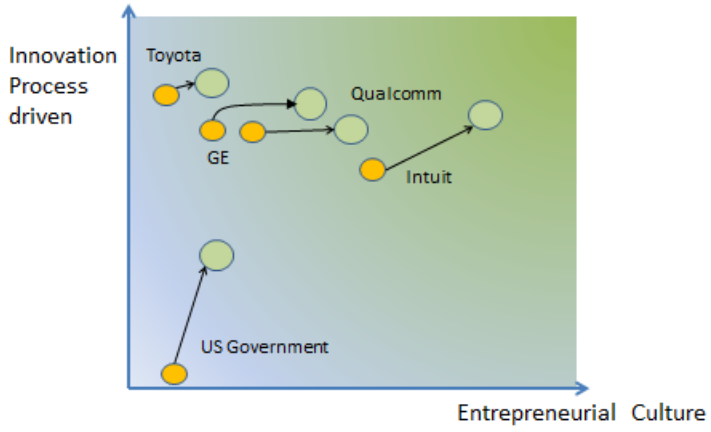

Figure 4 Use case companies progression to process driven Entrepreneurial culture

This means that GE actually started out very process driven and by implementing FastWorks, they do not only make sure to harness good ideas, they also grow an entrepreneurial culture. Intuit has, as stated above, entrepreneurship closer to its core and is looking to find the right balance in terms of process implementation. Qualcomm also wanted and has been successful in growing the entrepreneurial culture through executive sponsorship and giving latitude to employees through structured programs like QVF and ImpaQt.

For the US government it's not easy to find material supporting any given trajectory, but given that they are like most government, we think that they have a low entrepreneurial culture and that their innovation process drive is quite small right now, but that they would like to be more innovation process driven. Toyota has, as remarked earlier, already a very well-functioning innovation process. Time will tell exactly what parts of the lean startup methodology (not already used) that will bring them great value. Will it be to instill a stronger entrepreneurial culture in general, or will it be to capitalize on this in cultures where it is generally more accepted, like in the US.

Although we did not see examples of this in the companies we studied, Eric Ries[37] suggests having a clear *career path* for innovators and specific *job titles* which incorporate innovation and *learning objectives* instead of revenue objectives. Success can be recognized even

though the result is that the project is halted quickly. Thus innovators are *not punished* for failure, but *credited for implementation* of the process. To do this, the right innovation metrics must be applied and *innovation accounting* methods must be put in place. Intuit in particular has the most mature approach to level setting and funneling of projects.

6. Conclusion and Recommendation

We believe the companies which best harness (or create) a culture of innovation will be the best situated to thrive. The companies which best adopt these lean startup principles will be the best situated to grow into new markets and opportunities.

In relation to our objectives with this paper, we have found

(1) Why should established companies be interested in Lean Startup Methodology?
    It fosters an entrepreneurial culture which is good for innovation. Innovation is the thing that will make large enterprises prosper more so in the future. Even better, lean startup methodology makes the innovation process quick, lean and potentially disruptive.
(2) What have other companies been doing with Lean Startup Methodology – what works and what does not work?
    GE is successfully launching lean projects all over the world in all types of business, Intuit creates products customers love and pay for and the US Government speeds up introduction of tools that benefit all its constituents.
(3) How can enterprises get the most benefit from Lean Startup Methodology?
    By following our recommendations stated below

Recommendation

In summary of the literature and case studies, the following principles define the necessary conditions that we believe an organization must satisfy in order to engender enterprise-wide innovation and embrace lean startup principles:

1. Empower every employee to *propose and work on new ideas* outside their existing work
2. *Evaluate and filter* ideas methodically and use the appropriate business process: traditional or lean startup processes
3. Ensure *corporate-level support* and *protection/isolation* for the selected ideas
4. Provide a mechanism to *measure success using innovation accounting* outside the normal company objectives
5. Define *investment readiness stages* using clear guidelines and *provide appropriate resources* with the progress through each stage
6. Devise an *incentive structure* to enable innovators to have a *career path* and share in the success

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